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ELEMENTARY

GREEK EDUCATION

BY

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PREFACE

This Essay on Elementary Greek Education is the amplification of a paper prepared as a part of the class work of the writer while a student in the classes of Dr. James M. Milne of the Oneonta Normal School. The information here collected is derived from sources not accessible to the average reader and while not the result of original research in all cases, has enough of the author's own investigation and enough of arrangement and presentation of material to induce the hope that it may not be without value to his fellow-teachers and to warrant its foisting on an indulgent public.



Elementary Greek Education

INTRODUCTION

From ancient Greece all the streams which swell the current of modern civilization have proceeded. Greek philosophy, painting, architecture, history, sculpture, poetry and oratory have furnished suggestion and inspiration for all the centuries since; pedagogy should absorb what it may. If there are mistakes to avoid, practices to modify, or successes to imitate, the knowledge should be obtained and advantage taken. That the foundation of all other achievements which glorify the Hellenic name must have been in the educational system, is sufficient enticement for its study.

Greece proper included only that portion of the peninsula lying between the parallels 36° 30′ and 40° north latitude, about that of Virginia and Maryland, and was in extent about one-half the size of Pennsylvania. It had a rich diversity of surface, a delight-

ful and equable climate and a coast line much indented. A study of the physical features alone would give a key to the organization of its inhabitants. The natural divisions of the land must produce nations differing in customs and tendencies, yet the narrow limits of the whole country and the proximity of neighboring peoples precluded an essentially distinct language or an entire dissimilarity of customs. In harmony with this, Greece was peopled by a race allied in language and religion, but divided by differences of dialect, and by the existence, here and there, of various minor dieties essentially local.

During the Heroic (Legendary) Age Greece was inhabited by four seemingly distinct nationalities,—Dorians, Æolians, Ionians and Achæans. Their genealogy was traced in myth directly from Prometheus, the parallel of the Hebrew Adam. After the "general deluge" which Zeus sent upon the earth in consequence of the iniquity of the "brazen race," Deucalion and his wife Pyrrha, preserved by an ark which Prometheus, the father of Deucalion, had forewarned them to build, found themselves the

sole inhabitants of deserted Greece. Descending from Mt. Parnassus where their ark had rested after the subsidence of the nine days' flood, they prayed that the land might again be relieved of its solitude by the creation of a race of men. In answer to their petition Zeus directed them to gather stones from the ground and cast them over their shoulders. Those cast by Pyrrha became women, those by Deucalion, men. Thus was created what in Latin and Greek literature, is called the "stony race of men."

The offspring of Deucalion and Pyrrha were two sons, Hellen and Amphictyon, and a daughter, Protogeneia. Hellen had three sons, Dorus, Æolus, and Xuthus. Between these three Greece or Hellas was divided, Æolus reigning in Thessaly, and Dorus in the country lying north of the Corinthian Gulf, opposite Peloponnêsus. To Xuthus two sons were born, Achæus and Iôn, between whom his territory of the Peloponnêsus was divided. Thus originated the four tribes, to all of whom, however, was applied the name Hellenes, from their common ancestor.

Besides the fraternal feeling which their

supposed ancestry would engender, the Amphictyonic Council, which met semi-annually in the spring at Delphi, and in the autumn at Anthela, near Thermopyla, the national games, and a common interest in the Delphic oracle all conspired to unify the varied tendencies of each division into an approximately general aim. The aim was that thorough individualization should be modified by mutual interdependence. The realization of this ideal placed Greece foremost among the 'nations whose education has been distinctly 'national.'

In that time which the epic poets have rendered immortal as preëminently the "Age of Heroes," is found the first phase of Greek Education. This period extends from the darkness of an unknown past, down through the legendary days, misty, yet luminous with the names of Hercules, Eurystheus, Jason, Achilles, Agamemnon, Ulysses, Hector and Meleager; it comes forth into light with the return of the Heracleidæ (Dorian Migration); and sinks into historical oblivion during the three centuries immediately

preceding the first recorded Olympiad, 776 B. C.

The second period produced those treasures of art and literature which have baffled the efforts of succeeding ages to excel or equal. It began with the first Olympiad, reached its culmination in the age of Pericles, and sank into its decline through the disintegration of religious belief and the spirit of criticism stimulated by the rhetoricians and philosophers at the close of the Peloponnesian War, 404 B. C. This has been appropriately called "State Education."

A third period—when Greece had lost her nationality, and Athens had become the school of the world, when her methods were as cosmopolitan as her pupils, and her education was not for Greece—is generally called the "University Period."

In the following pages, the aims, methods and results of education during the first two periods will be outlined.

CHAPTER I

HEROIC EDUCATION

Concerning the period included under the head "Heroic Education," little is known beyond what may be gathered from the poems of the Epic Cycle. Of these, the Iliad and the Odyssey alone remain in their entirety, and accordingly from them about all that is known of the customs of this period must be drawn. While no date can be accurately assigned for the production of either of these poems, they are by common consent attributed to a period considerably later than the siege of Troy (twelfth century B. C.), and prior to the first Olympiad. Now it must be remembered that any poet in referring to events belonging to a period anterior to his own, must necessarily borrow much from his own experience and much from the customs of his own time. If, then, we accept the general date above given, we shall seem warranted in accepting these poems as mirrors reflecting tolerably well the manners and customs of the ninth, tenth, and eleventh century before our era.

On account of the simplicity and freedom of early times we can expect little of systematic arrangement in their educational plan.

Society at this period was divided into (1) the ruling class, Achæans, 1 consisting of the king (basileus2) and allied chieftains; (2) the freemen (laoi3), consisting of the general mass of the populace, who served as warriors, and practiced the various trades requiring any considerable skill; and (3) the slaves (douloi4), who were mostly captives taken in war. In addition to these, a fourth class called thetes, 5 made up of poor freemen who possessed no land and were compelled to work for wages, may be mentioned. The meagreness of their pay and the uncertainty of employment seems to have rendered them even worse off than the slaves.

In the state, there was little of organization. Such a thing as a constitution, though a necessity to the historic Greek, was as yet

 $^{^1}A$ χαιοί. 2B ασιλεύς. 3 λαοί 4 δοῦλοι $^5 heta\hat{\eta}$ τες

unknown. The sole strength of the government lay in the devotion and obedience of the people to their king. He was always of a family revered as being descended from some god, wes looked upon as the representative of Zeus on earth, and was chosen for his superior eloquence, strength and courage. There were two assemblies, the boulé1, composed of the king and his chieftains, in which skill in debate was a requisite, and the gathering in the market place, agora2, where the king made known the decisions of the boulé to the freemen, and permitted limited discussion In the agora, bringing together, as it did, the masses, eloquence was most potent.

In the perpetual unrest of so early an age, there was little charity for the weak. From birth, only the fittest were allowed to survive. Strength was reënforced; weakness left to its own extinction. He who could not help himself, could expect no aid from others. Men were bound together only by the ties of relationship or zeal for some common cause. The solemnity of an oath arose from its connection with a deity, usually

 $^{^{1}}B$ ουλή 2 'αγορά.

Horkos¹, yet often some other god under a special appellation. The inherent duty of man-toward man seems scarcely considered. Accordingly education had for its aim such a development as would best prepare for this struggle. By the poets, deeds of daring were applauded; while acts of cowardice were derided. The victor was a ruler; the vanquished, a slave. The ideal ever held before the youth was the acquisition of honor and glory through personal prowess. The eloquence of Nestor and the craft of Odysseus were the intellectual ideals. Achilles was the perfect type, to which every Greek youth hoped to attain.

We know little as to the form of the education of this period. It doubtless consisted of little besides the imitation of his elders, and was probably guided by the parental instinct which leads a man to train his sons in a way which coincides as nearly as possible with what he esteems the height of manly development. The adult, as shown by descriptions of games, was proficient in running, leaping and discus-throwing. In the beautiful myth of Hyacinthus, Apollo even was

^{1&}quot;Ορκος.

said to practise the last. Horsemanship, from the adroitness with which chariots must be handled on the battlefield, must have been common. Cavalry, however, was as vet unknown in warfare. The marksmanship exhibited by the archers, and the dependence placed upon the spear, either hurled or thrust, made practice with these imperative. Among the sea-dwelling Greeks swimming was common, indeed in later times "he can neither swim or read" became the proverbial appellation of an ignoramus. After removal from the immediate watchfulness of his mother and the female slaves, the boy's time was probably occupied in such sports as he could copy from the acts of his elders, as seen or recounted to him; and upon reaching youth's estate, the practice of these same exercises doubtless became obligatory.

The intellectual culture was mostly limited by experience. It was necessarily of a narrow range, but held in such a way as to be at once available. In harmony with his characteristics in every age, the Homeric Greek was trained to think on his feet

¹ μηδέ νεὶυ, μηδέ γράμματα.

Writing was probably unknown, so that memory was the only storehouse of knowledge. The multitude could only be influenced by addressing them; and as in the early history of most nations, addresses were most acceptable when in rhythmic form, abounding in poetic imagery, and accompanied by music. People were interested in tales of the marvellous. The exploits of heroes and interposition of the gods were subjects of never-flagging interest: and the acceptable rendering of them ever product. ive of favor to the singer (aoidos1). From the demand for such compositions, the calling of bard became as distinct a trade as that of smith, leather-dresser, or leech. Its standing in the community may be inferred from the fact that kings themselves did not disdain its practice Achilles sang heroic deeds to the accompaniment of his own lyre. At every public gathering and in the courts of kings, the people were amused and aroused by the stirring lays of these bards. An audience wild with desire for the fray as they listened to the story of carnage before Troy, or melted to pity at

^{1&#}x27;αοιδὸς

the parting of Hector and Andromache. must have been an oft-repeated sight to the Greek of the Homeric period. Placing as they did implicit faith in the reality of the heroes and divinities depicted in the recitals great influence must be imputed to their presentation. Their didactic use was powerful. The bard became the teacher and preacher of the community. To him the people looked for the description of the deeds of heroes and the attributes of the gods, and they endeavored to mould their own lives in accordance with the ideals protrayed by him. From the partially unconscious tuition of these primitive teachers, the people must have derived the larger share of both intellectual and moral education.

Geography, never extensive to the Greek, was learned from the location of the heroic adventures recited. All the geography with which Homer appears acquainted is continental. Greece with the neighboring islands of the Ægean Sea, Thrace, and the Troad, with the Hellespont between, and Asia Minor between Paphlagonia northward and Lycia to the south. Phenicia, Egypt,

and Libya are known by name. The Nile is referred to as the "river Egypt," but the Black Sea is unknown. Sicily¹ is mentioned, but no knowledge is shown of Italy, or any part of the western world.

Number was carried little further than counting. Coined money was yet unknown. all trade being carried on by barter. The natural aversion of the Greeks to commerce did away with the necessity for much computation. The decline of superstition had not yet produced science. The character of the Greek religion obviated its necessity. The various phenomena underlying science were readily explained by reference to the presiding genius of some god, or by personification. To the Greek all Nature was a manifestation of certain invisible powers. The storm of the sea was the rage of Neptune2; the whirlpool of the Strait of Messina was the abode of two monsters, Scylla and Charybdis, each seeking to engulf the unwary mariner; and in the rumble of the earthquake and in the belching volcano were recognized the struggles of the imprisoned Typhoeus. In the ripple of the stream, the

¹ Σικανιη. 2 Ποσειδών.

rustle of the branches, and the twitter of the birds, was heard the voice of some controlling deity; the interpretation of these manifestations (manteia¹), as of the sacred oak at Dodona, was a favorite method of learning the will of the gods.

Although there probably was no reading, effective speaking and reciting received much attention. Besides the bards, who sang their own compositions, there was another class called rhapsodists, who sang the verses of other composers, striving to simulate by intonation and gesture the character described. To these latter we are indebted for the preservation of the Iliad and Odyssev. These poems, in common with numerous other epics now known only by name, were recited at festivals by rhapsodists especially trained for the occasion. Each had a definite part assigned which it was his pride to render complete. Holding in his hand a branch of laurel as a symbol of ordination into the service of the muses, he interpreted the author's conception of the character immortalized in the selection.

¹ μαντεία.

In the ethics of the Greek, justice was supreme, and Zeus its dispenser. In the Iliad we find, "When in the market-place men deal unjustly, and the rulers decree crooked judgment, not regarding the fear of Zens," he sends the storm, the earthquake and thunderbolt as his avengers. Ulysses says, "Zeus looks upon the children of men and punishes the evil-doer." The ill-will of the gods might be averted by prayers and sacrifices, but back of them and unchangeable, were the Fates1. They held strictly to account alike both gods and men. Pleading could not turn their decrees, nor guilt escape their punishment. Destiny was all-powerful; the gods, each endowed with liberal power, helped in and were answerable for its fulfilment. Idolatry was never practised, and in this time even temples were rarely built. Their religion was entirely a conception of duty towards higher beings who dwelt beyond the clouds and were invisble to mortal eyes. The keynote of their moral obligation is found in the term aidos2 which Mr. Gladstone thus explains: "The noblest of all the ethical

¹ Μοίραι. ² αίδώ5.

indications of Homer's poems is to be found in the notable and comprehensive word aidos. It refuses to be translated by any single term of English or of any other modern language; indeed, I doubt whether it had not abated much of its force in the classical age of Greece. It means shame, but never false shame; it means honor, but never the base-born thing in these last days called prestige. It means duty, but duty shaped with a peculiar grace. It means reverence, and this is without doubt its chief element. It means chivalry, and, though this word cannot be given a good technical translation, it is perhaps nearer in pith and marrow to the Homeric aidos than any other word we know. But aidos excels it as expressing the faculty of the mental eve turned ever inward. Aidos is based upon a true selfrespect, upon an ever living-consciousness of the nature that we bear and of the obligation that we owe to its laws. There is no sin that a human being can commit without sinning against aidos." There was no law, but that usage which custom had created. This unwritten, "common law"1

¹ θέμις.

was the outcome of their conception of duty toward their deities and not of human preference. Devotion and obedience to the king was of prime importance; respect for old age universal. Parents were to care for their children until grown, and in turn to receive care and support from them in old age.

Woman occupied a position much in advance of her historic sister as regards freedom and influence. The prominence in legend of such names as Penelope, Andromache, Clytemnestra, Hecuba, Eriphyle and Jocasta amply illustrates the difference. Woman was the companion of man, not his slave. The marriage tie was respected, and even a second marriage looked on with disfavor.) The mother was the early educator of her sons and had complete charge of her daughters. Girls were trained in household duties and to superintend the work of their slaves. Spinning and weaving were usual. The cloth for all clothing worn was spun and woven by the women. Helen embroidered a peplum depicting the exploits of the Greeks and Trojans. The skill and acuteness of Penelope are shown in the construction of

the web with which she kept her suitors at bay. Dancing and playing upon the lute must have been the principal accomplishments. The freedom and profitable nature of this training produced most excellent results. Homer speaks of Greece as "full of lovely maids." Sparta was the "abode of beautiful women" and Achæa likewise famed. Especial women are described as "fair-cheeked," "glancing-eyed," "with beautiful hair," "with a slender ankle," and "silver-footed." Their more nearly equal rank with man stimulated intellectual activity.

Many customs existed which indicate how much yet lacked a complete escape from barbarism. Human sacrifice was allowed, as is shown in the annual consignment of Athenian youths and maidens to appease the Minotaur, and the frustrated sacrifice of Iphigeneia at Aulis. Homicides were frequent and unpunished by the authorities. The only retribution was that of personal retaliation. The murdered man's relatives were bound to avenge his death, but a reparation

¹ καλλιπάρηος. 2 έλικώπιδα. 3 καλλικόμοιο. 4 καλλίσφυρος. 5 'αργυρο'πεζα,

of cattle, land or treasure might be made and the slayer purified of his crime. In the slaughter of a parent, as with Œdipus and Orestes, the persecution of the Furies (Erinyes1) rendered life a torment to the parricide. In battle no quarter was asked or given; all the latent savagery in their natures was aroused. The dead body of an enemy was stripped and thrown to the dogs. and in the case of Hector's dead body outraged by Achilles no criticism was called forth. When Priam seeks the dead body of his son he presents this terrible picture: "My sons are slain, my daughters are dragged into captivity, the chambers of my palace violated, the infant children dashed to the ground." An orphan despoiled of his heritage could expect little aid from society. The last three phases of social organization present a striking contrast to later Greek development. In historic times, homicide was a sin against the gods and deserving the check of society; while maltreatment of the dead was thought unworthy of a right-minded Greek. After the battle of Platæa, Pausanias rejected with scorn a proposition to

^{1 &#}x27;Ερινύες.

take revenge upon the dead Mardonius for the insults inflicted upon Leonidas at Thermopylæ. In the laws of Athens, there was a special provision for the care of the persons and property of orphan minors.

The household manners of this period indicate a state of civilization in some respects in advance of their descendants, and the æsthetic characteristic afterward so marked had already become manifest. Satisfying the appetite did not engross the whole attention at meals. Discussion, wit, and song enlivened their repasts and a certain etiquette elevated their influence. Bathing before eating was practised; slaves washed the feet of guests with tepid water in a brazen basin; and on the return from a warlike expedition men bathed in the sea before considering themselves sufficiently purified to enter their abodes and those of their household gods. The guests never reclined as in later periods in both Greece and Rome, but sat at table. Wine was always mixed with water, and offered to the oldest first. Gluttony was unbecoming, and drunkenness unpardonable. The meat was cut by carvers, and attendants waited upon the guests, and washed the tables with sponges from time to time during the meal. Dancing was indulged in; but by the guests, both men and women, instead of by hired performers as later.

Houses were built of wood, stone, tiles and metals, and in decoration must have been magnificent. Golden drinking cups² are mentioned, and "goblets of silver save the lips, and they are bound with gold." The shield of Achilles was adorned with "a vineyard beautiful, all of gold, and heavily laden with grapes." Their helmets were "caps wrought all from silver save their brims of gold," and they were further protected by "brazen corselets edged round by shining tin." The æqis3 of Minerva had a hundred tassels pendent, all of gold, all well plaited and each worth a hecatomb."4 All these indicate a knowledge of metalworking far advanced. In the passage relating to the arms of Achilles as made by Hephæstos, Homer gives some practical notion of the armorer's work:

¹ δαιτροί. ² "Χρυέοιδι κυπέλλοις," ³ αίγίς.
⁴ II. B. 448-449.

"So speaking he withdrew, and went where lay The bellows, turned them toward the fire, and bade The work begin. From twenty bellows came Their breath into the furnaces,—a blast Varied in strength as need might be; for now They blew with violence for a hasty task, And then with gentler breath, as Vulcan pleased And as the work required. Upon the fire He laid impenetrable brass, and tin, And precious gold and silver."

The dignity of labor was then assured as it has never been since. Kings and queens labored and were proud of their accomplishments. Skilled work denoted a higher order of mind and was doubly honorable. The head of the family killed and cooked the food, and was not a butcher but a sacrificing priest.

In such an atmosphere the education of the youth was given. Not by regulated courses of instruction occupying a set portion of time and with duty "measured always," but by constant presence amid the ennobling influences of this truly "heroic" period, manhood was reached. The best of preceding ages were preserved for emulation, and high ideals of living inculcated by daily association and required by religious

faith. From such a source proceeded the culture and refinement of Greece, and by the stimulus of noble simplicity conveyed in the Great Epics modern progress has been in a great measure produced. Without a plan of education, every part was educational.

CHAPTER II

STATE EDUCATION

On emerging from the two or three centuries of obscurity between the Heroic Age and the era of recorded history, the social composition of the Hellenic races shares the general illumination. The change is that of from few witnesses to many, from poetry to prose. Conjecture's sway has lessened and assertion's has begun. The development of organization has been considerable. Government has become more stable, and the idea of nation and national interests has subordinated personal leadership. Individual caprice has given place to rule along ethical lines; experience has crystallized into laws: and the sum of individual tastes has become a national ideal. An educational system adapted to the production of this ideal is under State control, and the period may be properly termed that of State Education.

As has been noticed, the distinct nationalities of Greece, though in a sense united by the Amphictyonic League and the great national games, viz .: - Olympian, Pythian, Nemean and Isthmian, still retained an essentially distinct individuality, each working out an ideal peculiarly its own. The Doric race (Sparta, Aryos, Crete, and Messenia) placed proficiency in gymnastics foremost; the Ionic (Attica and the islands of the Archipelago) esteemed poetry in an equal degree; while among the Æolians (Bœotia and Thessaly) music was regarded as principal. In after development, the Doric and Ionic tendencies absorbed the Æolian, and except during the short space of Theban supremacy under Epaminondas, the study of Greek education concerns itself with the methods pursued in two cities-Doric and aristocratic Sparta, Ionic and and democratic Athens. These two cities, though their systems were opposed in some respects, nevertheless contained much in common. Each aimed at developing the mental, moral and physical functions, but were at variance in their methods. Spartan education was "individual" but would fit

each person to a common mould. The resulting individuality was to be such as would best subserve the end of making Sparta supreme in military power. Athens with its educational plan of the same general type, was yet more fully its realization. Individuality was truly individual. The State was less selfish in its demands than at Sparta, and trusted prosperity to come to itself through the zeal and talents of a free and cultured citizenship. "A sound mind in a sound body" was a principle adopted equally by both; but to the Spartan this dependence was of a utilitarian nature only, while to the Athenian, the soundness of body was the prerequisite of that beauty of both mind and body which was the true and ultimate ideal.

CHAPTER III

STATE EDUCATION AT SPARTA

The Spartan aim was to rear a nation physically perfect, and capable of enduring hunger, thirst, torture or even death without flinching; to make the people unequalled in military drill; and to inculcate as the supreme thought, absolute devotion to the state. The system of education accordingly kept these ends ever prominent. From infancy the child was subjected to tests looking toward this aim. The new-born babe was taken before a council of elders, who, after an examination as to its perfection of form and general robustness, decided whether its life should be preserved. Such as were puny or deformed were adjudged unable to fill the requirements of adult life, and "exposed" to die. Until the age of seven, the child to whom life had been granted by this board of censors was left to the care of the mother. Naked, or clad in a single short garment, he was early trained in the endurance of the hardships essential to his type, by exposure to the rigors of the weather, by deprivation of regular food, and by a total absence of the fondling care usually accorded those of tender years.

At the age of seven the child was consigned to the care of the State and subjected to the regular public education. Henceforth he ate at the public table and slept in the public dormitory; only half rations were granted and his bed was a mere bundle of reeds or rushes which he was compelled to gather for himself from the banks of the Eurotas. No knife or instrument other than the hands was allowed in obtaining them. In winter thistledown was scattered among the reeds to inspire a feeling of warmth in the sleeper. For exercising his acuteness the boy was often allowed only what he could steal. Adroitness was applauded if he was not detected; but his awkwardness punished if discovered. The familiar story of the Spartan boy, who having a fox secreted under his garment refused to acknowledge the theft and fell dead from the

^{1 &#}x27;αγωγή.

animal's lacerations, illustrates the trait. Indeed larcency seems to have attained the dignity of a "common branch."

The head of the educational system was a superintendent¹, an emineut citizen especially chosen to look after the games and habits of the youths. His powers were quite extended, requiring a staff of assistants called moderators2 or chasteners2, and whip-carriers3. Besides these officials the youths were under the constant supervision of the older men, who regulated their play by well-timed praise or reproof. They were accustomed to stir up frequent disputes and conflicts among them to see who were brave and who cowards. In the absence of the superintendent1, every adult citizen had the power of father over the children of the State, and corrected and punished all vicious or disorderly conduct. Besides, each boy had a special guardian4 in the person of some adult, who entertained affection for his ward5, "backed" him in his contests with other boys, stimulated his courage,

¹παιδόνομος. ²σωφρονισταί. *μαστγοφόροι. ⁴ είςπνήλης. * αίτης.

taught him to speak only when he had something to say ("laconic" brevity), and generally formed his ideals. This relation though recognized by law was established by mutual choice, fortified by the disgrace belonging to the absence of such attachment in the case of either man or boy. Though capable of and frequently subject to abuse, this practice was the strongest character-forming agency of the Spartan system.

At the age of twelve, the training increased in severity and took on more of a military character. The boys were divided into bands called agelæ or bonæ¹. For each band, a captain (bonagar²) from those boys just entering manhood. The bands were subdivided into hilæ³, each of which slept in a part assigned on the rush beds.

At eighteen they were admitted to the youth's class, *ephebi*⁴, and as *melleirenes*⁵ were for two years subjected to stricter discipline and greater drill. They were compelled to undergo strict examination before the *ephors*⁶ once in ten days regarding their

¹ ἀγέλαι, Βοῦαι. . ² Βουάγαρ. ² ὅλαι. ⁴ ἔφηβοι, ⁵ μελλείρενες. ⁴ ἔφοροι.

physical condition, their clothing was inspected daily; and they were exercised in gymnastics, the use of arms and in light skirmishing under the supervision of the bidwi¹, five or six in number, who were a regularly constituted board of inspectors with a president² and a place of meeting³ in the market-place. To add the stimulation of rivalry, Lycurgus enacted in his constitution that the ephors appoint three hippagretæ who should each choose one hundred melleirenes from the bravest to serve as guards for the kings. Any who had not been chosen could challenge those who had been, and, if victorious, take their places.

At twenty they were called eirenes⁴, exercised direct influence over their juniors and were eligible for actual warfare. Their training was in the endurance of hardship, coarse food, reed beds, and limited bathing. They practised with heavy arms, in swimming and ball-playing, danced the Pyrrhic dance, and manned the fortresses of the country. Not until the age of thirty

¹ βιδιαίοι (βίδεοι). 2 π

² πρέσβυς βιδέων.

³ αρχείον. 4 είρενες.

did they attain their majority and become admitted to citizenship. Then they were held to the exercise of their political functions, compelled to marry, and were held subject to military duty until the age of sixty.

Gymnastics were much indulged in, but not as extensively or systematically as in Athens. Jumping, running, wrestling, playing with lances and at quoits¹, were common. Boxing, and the pancratium², a combination of boxing and wrestling, were not permitted. Hunting was a favorite sport, and in the coverts of Taygetus found an excellent ground for its indulgence. It was mostly in favor on account of the hardships encountered, for the opportunity of becoming familiar with the country—studying geography by "observation"—, and for its resemblance to actual warfare.

Letters were taught very little, only as a concession³. Memory was cultivated quite largely. Children and youth were taught hymns to the gods, and metrical statements of the laws arranged to be sung to fixed

¹ δίσκοι. 2 παγκράτιον. 3 ενεκα χρείας.

melodies. Music, not largely cultivated, was entirely in the Dorian mode, described as essentially manly and inspiring, and which was regarded as the national music of Greece¹.

Dancing was much practised, and highly esteemed for its union of gymnastics and music, and for its use in producing ease in simultaneous military evolutions. The Pyrrhic dance was performed under arms, and is described as representing the mode of attack and the rapid motion by which the missiles and blows of the enemy were avoided. It was danced to the music of the flute and with a quick, light step, whence the Pyrrhic foot (-) of prosody. The hormos2 was a dance by youths and maidens, in which the youths danced first in movements suitable to their age and of a military character, and were followed by the females in measured steps and with feminine gestures. The gymnopædia was a festival commemorating the victory of Thyrea, and was almost entirely of a choric character.

The athletic taste which was so promi-

¹ Έλληνική άρμονία.

² ορμος.

nent in the Athenian mind had no place in Sparta. "There was no Spartan sculptor, no Laconian painter, no Lacedæmonian poet." The duties of man to Sparta alone were taught; those of man to his fellow neglected. To bring the greatest good upon their native land was accounted the end of ambition. This system, admirably adapted for its purpose when confined within the narrow limits of Laconia, was not an education for Greece. Despite their successes in the Peloponnesian War, the Spartans could not adapt themselves to a more extended rule or a broader national life, and on account of this defect, the Spartan system never became widely prevalent. .

CHAPTER IV

STATE EDUCATION AT ATHENS.

"Athens is the school of Greece, and the Athenian is the best fitted by diversity of gifts for the graceful performance of all life's duties."—Pericles.

The contrast between Sparta and Athens is that of conservatism with liberality; asceticism and rigidity with luxury and freedom; law, denial and utility with educated volition, indulgence and asthetics. As has been observed, education at Sparta was a matter of great public concern, regulated and compelled by law in its minutest features; the education of Athens was mostly private in character and devoid of compulsory enactments. According to the boast of Pericles: "The individual bent of each man is there subjected to no cramping fetters; he is allowed to do as he pleases without suspicion and stern measures of discipline-in their stead respect for law prevails, obedience to authority, law unwritten, a general contempt feared more than punishment." This freedom, love of beauty in mind and body, of harmony in all faculties shaped and guided Athenian education; and Athens has left no higher compliment for herself than this fact of an education not limited, yet guided, not prescribed but expected.

The condition of Attic society rendered unnecessary the requirements and encouragement which are so important in modern times. The whole Attic population comprised but twenty-one thousand citizens1 (politæ), ten thousand resident foreigners (metoikoi2 or metoeci), and four hundred thousand slaves (douloi3). The disproportion between the citizen and slave classes is explained on the assumption that in enrolling the former only those of military age were enumerated, while with the slaves, each having a value, every soul was numbered. On this ground this citizen class could be safely taken as eighty thousand, thus giving four or five slaves to each person, which is not at all out of harmony with what is known of them. Only the citizens' children were

¹ πολίται. * μέτοικοι. 3 δούλοι.

admitted freely to the schools, though the privilege might be bestowed upon a foreign resident by a vote the people (demus¹) on condition of a certain tax. Education was given slaves only as a means of increasing their value, and they need be taken into no consideration in treating the educational system. The Athenian citizen found no vocation open to him except the military, literature or art; all other was dishonorable and but "worthy a slave;" hence it was that the artisans, tradesmen, and laborers were slaves. Thus the very class for whom we find "compulsory education" necessary was removed from the question.

The importance accorded education is shown by the many allusions made to the existence of schools in various towns. During the Persian Wa when the refugees from Athens sought safety in the Troezen, the inhabitants at once made arrangements for the instruction of their children, and Herodotus, Thucydides, and Pausanias, each mention calamities befalling schools in different towns.

¹ δημος.

While it has been intimated that there was an absence of State regulation regarding courses of study and attendance upon them, whenever public sentiment failed in furnishing sufficient stimulus for a proper observance of its customs, stronger means were in reserve. In the case of orphans or children of a widow the archon¹ might interfere, and under circumstances of obvious neglect the Court of the Areopagos would interpose. A "writ of injury" might be taken against neglectful guardians, and if a parent had failed in providing his children with an education, they owed him no support in old age and not even respect.

The Athenian father could exercise his own discretion as to whether or not his infant's life should be spared. If the family was already large, the infant puny, according to general usage it was "exposed", either to be taken up by some one and afterward sold into slavery, or allowed to perish from starvation and exposure to the elements. On the contrary should the child please the father, five days after birth, the Amphidro-

¹ γραφή κακώσεως.

mia, it was "taken up" by him, and carried around the hearth1 in token of preservation. On the tenth day2 presents were made and a name given. In wealthy families a nurse, usually a Spartan, and other attendants, had almost entire charge of the child. In families of moderate circumstances, this duty probably devolved upon the mother. No family of the citizen class was so poor as not to have at least one slave to do the housework. Babyhood was probably passed much as now, though with fewer devices for its comfort and amusement. Cradles³ are not mentioned before Plutarch. Baubles4 were suspended about the neck; rattles (invented by Archytas), go-carts, 6 and dolls7 moulded from clay to represent warriors, generals, and mythological subjects, were common toys, Marysas bound to the tree being a favorite. It was the custom for the nurses to relate many tales8 to their charges, the subjects of which were chiefly legendary actions of the gods and heroes.

¹ άμφισρόμια. 3 δεκάτη. 3 κλινίδια.

[•] περιδέραια. 5 πλαταγαί. 6 άμαξισες.

^{*} κοραί. * γραών (τιθών) μύθοι.

From a supposed tendency of these to give low ideas of the gods and to debase moral standards, Plato, in his Ideal Republic, advises much care in their selection, and he even repudiates Hesiod and Homer. At this time no such fear had arisen. The Fables of Æsop were largely used in these narrations.

The behavior of his children was especially looked after by the Athenian parent. They were never put on exhibition or praised for their precocity, their bright sayings incorporated into adult conversation, nor themselves made the arbiters of the household. Other subjects for conversation were found in their presence, and the children were brought up to be well-behaved in the presence of their elders, attentive rather than attended. No Greek author has preserved the bright sayings of children.

There was necessarily a gap between infancy and school life in which the child's attention was largely devoted to the out-door games usual to this period of life. Indeed, games aided in the recreation of the Athenian boy at all ages. Many of these games have

had their names and partial descriptions preserved to us. Among them were the hobby horse¹, and hopping on one foot² on a skin bottle3 which had been filled with a liquid and greased on the outside. Blind man's buff existed in a game termed the "brazen fly".4 In the game called ostrakinda5, an oyster shell with one side black or moistened was tossed in the air. The black side was called night, the other day?. The boys were divided into two companies, and when the shell had been thrown the party whose color was uppermost pursued and made prisoners of their opponents. Epistrakismus8 consisted in causing an oyster shell to skip along the surface of water and was won by a greater number of "skips". Phryginda was very similar to modern marbles except that dried beans were used in their stead. Spinning coins on their edge10, rolling hoops11, and spinning the various kinds of tops12, were favorite games

¹ κάλαμον παραβήναι. 2 ασκωλιόζειν.

^{3 &#}x27;ασκός. Αχαλκη μυῖα, 5 όστρακινδα, 6 νύξ.

⁷ ήμέρα. ⁸ ἐπιστρα**κ**ισμός. ⁹ φρυγίνδα.

¹⁰ χαλκισμός. 11 τροχοί. 12 βὲμβιξ, στρομβός, and στρόβιλος.

with the Athenian boys. A common game was omillan1, in which a knuckle bone or round stone was tossed so as to lie in a hole2 in the centre of a fixed circle, the aim being to displace those already there. A similar game is common among the Italian immigrants employed on our public works. The Italian game of morra, matching thumbs and fingers as to number and position, was also played. In another game five pebbles or round bones (astragaloi3) were tossed up4 so as to be received on the back of the hand. These astragaloi were often cut square and used as dice.

The "beetle" game seems to have furnished the most amusement. A long thread was attached to a beetle⁵ and he was guided in his flight at the caprice of his owner. By way of improvement, a waxed taper, lighted, was often attached to his tail. This sport is even yet practised in Greece and has caused several serious fires. Ball was a favorite game and was played even in Homeric times, though never in anything like

¹ ωμιλλαν. 2 τρόπα. ⁸ άστράγαλοι,

⁴ πενταλιθίζειν. 5 μηλολόνθη.

modern complications of cricket, tennis, and The game is supposed to have base-ball. consisted principally in throwing and catching, the players keeping time in some sort of rhythmic motion. Episkuros was very nearly modern foot-ball. Aporrix2 consisted in making the ball bound from the ground or from a wall and counting the number of times it rebounded. Other games of ball were called pheninda3 and urania4.

While many of these games were too complex to have belonged to this time of the child's life, it has been impossible to separate them, and they are given together in this place, with the suggestion that most of them also belonged to the playtime of real school, and also as variants with the regular gymnasium exercises.

The scene of the childhood games must have been largely in the street. Plutarch mentions Alcibiade's playing there. Though the boy was under constant care and watchfulness, from Plato's observation that "of all animals, the boy is the most unmanage-

¹ ἐπίσκυρος. 2 απόρριξ.

³ φαιυυδαί,

⁴ ουαρνία.

able, he is the most insidious, sharp-witted, and insubordinate", we would infer that twenty centuries have not essentially changed his characteristics and that undoubtedly his attendant found his office no sinecure.

CHAPTER V

STATE EDUCATION AT ATHENS-AT SCHOOL

In the semi-kindergarten period just discussed, the boys and girls were educated together, though presumably the former were granted the more freedom. At the age of seven the boys were separated from the girls and commenced school life. The age, however, was probably varied by circumstances. The girl's education continued to be carried on within her home. At no time in the history of Greece was the intellectual culture of women deemed important; on the contrary those possessing it were considered morally low, and to this class women with accomplished minds were usually limited.

Arrived at the momentous time, "beginning school", a slave was chosen the constant companion of the boy. This slave or pedagogue (conductor of children) was carefully selected with reference to honesty and intelligence. Men of polished manners were

preferred. The pedagogue had general oversight of his protegé, accompanying him to the school and gymnasium, carrying books, writing implements, and other school utensils, and guarding him from danger everywhere. Whether this attendant remained to fetch his charge is uncertain. If he remained it must have been outside the school, as the law forbade under penalty of death that any person other than relatives of the master be allowed to enter. In later times this law was not strictly enforced, but it shows the importance which was attached to the absence of all distracting influences. While Plutarch censures a want of care in choosing the pedagogue*, we may safely presume that in a country where such attention was generally paid to right surroundings, carelessness in this particular could not have been usual.

The boy started early for school attended by the pedagogue and returned for a late breakfast. Arguing from analogy with

^{*}The reader will notice that here and elsewhere, this word is not used in its English sense, but rather referring to the attendant slave who accompanied the boy to the school, where he was placed under tuition of the teacher $(\delta i\delta \acute{\alpha} \delta k \alpha \lambda o 5)$.

Roman schools, it has been surmised that the afternoons were given up to light gymnastics and other occupations of a recreative nature. Schools were forbidden by law to open before sunrise or to continue after sunset. The Interpretamenta of Dositheus gives the following in parallel Greek and Latin as descriptive of the morning entrance into the school. "First, I salute the master, who returns my salute: Good morning, master; good morning, school fellows. Give me my place, my seat, my stool. Sit closer. Move up that way. This is my place; I took it first."

There were three different buildings connected with the education of the Greek boy: the school-room, the palæstra and the gymnasium. (The palæstra and gymnasium will be described in the chapter on gymnastics.) The term scholé (leisure), often applied to the school, was of later application, and properly belonged to the leisurely discussions of the philosophers. To distinguish the school-room the terms, didaskaleion, or pedagogeion, were applied instead of scholeion. These school-houses, though

, _f L (1.5

not State institutions, were provided with such furniture and equipments as the system required. The teacher occupied a large, high chair (thronos) with a straight back and low arms. The children stood or sat about, either on benches (bathroi) or on the ground. Tables or desks were unknown furniture. In reading or writing, it was the universal custom, as yet in the east, to hold the book or roll upon the knees. From pictures which have been preserved, it is judged that the walls were hung with varions articles necessary in a school-room. There are discerned boxes for book-rolls, the implements used in teaching writing and reading, reckoning boards (abaci), writingboards, geometrical models, flute cases, lyres, etc. Notice-boards on which regulations were posted, are referred to. These were covered with chalk and called "white boards"; how they were written on is not told. Previous to the Peloponnesian War (431-404 B. C.) books were not common. Later, they were rapidly multiplied by slavecopyists, and a special part of the marketplace was set apart for their sale. Their

use in schools was limited at all times, owing to the stress placed on memory. The books existing were written on rolls of papyrus or tablets of wax fastened together at the side. From recent researches, it has been conjectured that the texts of many authors had illustrated school sheets accompanying them. Grasberger (II., 224) says that Böttiger and O. Jahn from their researches have concluded that the fragments of the tabula Iliaca of Theodorus, now preserved in the Capitoline Museum at Rome, are but pieces of one of the many tablets illustrating different scenes of the Trojan War and kindred legends, which once adorned the walls of the schoolroom and helped to render more vivid the marvellous descriptions of the poets. These pictures were of a large size and arranged in a series, having names and explanations attached. Thus the scene in the first book of the Iliad, in which Chryses prays Agamemnon to free his daughter and receive the ransom, is represented with Chryses imploring Agamemnon, and close at hand, a wagon loaded with the proffered price, while underneath are the words CHRYSES, AGAMEMNON,

RANSOM. Scenes in the third and twenty-fourth books of the same poem and others from the Odyssey have received like treatment. In each school-room there was a shrine of the Muses or of Hermes. Offerings were made before it, and the head of the school was regarded as its priest. About the room were disposed statutes of the tutelary gods and busts of heroes and eminent men, serving both as ornaments and as incentives to the boys. A scholium of Æschines says that a supply of water was always at hand to allay thirst.

All schools were private ventures. The State never furnished school-buildings or exercised much surveillance over the school. The general intelligence of the citizens maintained the system exclusive of State compulsion. Plato suggests the appointment of teachers to be paid at public expense, but the plan was not adopted till late.

By a law of Solon, certain officers were appointed to inspect the schools, but their duties seem to have been confined to administering certain laws regarding morality, and to have had little reference to examining

into the qualifications of the teachers. In fact the only necessary qualification mentioned was that they should be forty years of age. Teachers practised their profession rather for want of other employment than from any special fitness. Yet, since the choice lay with the parents, we should hardly expect want of care in the selection; while the facts that the wages must have varied with the fitness of the teacher, and that they depended on the number of pupils, must have been a constant incentive to better preparation.

Teachers were, however, never greatly honored. If quite learned, they were accused of pedantry, and if zealous and impatient, of bad temper. Dionysius, the tyrant of Syracuse, spent his old age teaching children at Corinth. An unknown comic writer said of someone: "The man is either dead or teaching the alphabet." Demosthenes in the De Corona thus seeks to belittle his opponent: "But you, worthy man, who despise others compared with yourself, now compare with mine your lot, which consigned you to grow up from boyhood in the

greatest need, when you helped your father to attend in the school, preparing the ink, cleaning the benches, sweeping out the school-room, and so taking the rank of a slave and not of a free boy." The teacher's pay was dependent upon attendance and was due monthly. Deductions were made proportionate with a pupil's absence when such occurred. Extravagant prices were charged by the Rhetoricians and Sophists, but the pay of the ordinary school teacher was probably reasonable. The attendance in a school-room was limited by law.

While the absence of compulsion made the matter of education mostly dependent upon the father's conscientiousness, there were few cases of neglect. The extent of education depended upon the circumstances of the family.

The sons of the wealthy of course attended longer than their poorer associates. Some even continued at school until their admission into the ranks of the "patrolling police" at the age of sixteen or eighteen. The discipline was largely by corporal punishment, and its justice is maintained. The only

caution is against using a servile mode of punishment on a free boy. The common representations of the Greek school-master as a cruel flogging machine, as he is represented in pictures exhumed at Pompei, and as alluded to by Lucian, were undoubtedly satirical exaggerations.

CHAPTER VI

STATE EDUCATION AT ATHENS—GYMNASTICS

The essential branches of education were different at different times. In the time of Pericles, there were distinctly but two branches, Gymnastics and Music, the latter including Grammatics, Music in its limited sense, Drawing, and Dancing. Drawing is not mentioned before Aristotle, but must have been common to have produced such painters, architects, and sculptors as flourished in this period. The term "music" was with the Greek, synonymous with everything included under intellectual culture, and only received its specialized sense with the advent of the philosophic age.

Gymnastics was the principal branch of school instruction, and was the only one which was carried on at State expense and practised through life. Its limits are not exactly known, though it is certain that it occupied one-half the time and attention of the pupil until his sixteenth year and for the succeeding two years was his entire training.

Plato and Aristotle recommended keeping the boys under the instruction of the gymnasium until ten years old, and supplementing this by three years at the school of the grammarian. From similarities to the Roman system in some other respects, and from reference in Plautus, it has been thought that the day was divided between the different studies. This supposition seems the more rational because harmonic development was their constant aim, and the reforming tendencies of Plato and Aristotle would hardly lead us to expect them to record here simply common usage.

Gymnastic exercises were carried on in two different buildings, or possibly two divisions of the same building, the gymnasium and the palaestra. The exact functions of each remains a matter of dispute. Some consider the gymnasium a building erected at State expense and open for general public use, while the palæstra was a smaller establishment, a private venture of the gymnasium instructor, and devoted entirely to the use

of boys. Becker in his "Charicles" proves the presence of boys in the gymnasium as well as the palæstra, which would favor the view that the latter was one of the subdivisions of the gymnasium. Accepting this view, we find the gymnasium consisting of a large building with these parts,-(1) stow or porticoes divided into apartments, or exhedræ furnished with seats and fitted for the study and discourse of the wise; (2) playgrounds where the ephebi or youth exercised; (3) dressing rooms; (4) palaestra or wrestling place, the floor of which was covered with dust or gravel to prevent slipping; (5) hot and cold baths; and (6) the stadia, a sort of semi-circular race course, in which most of the exercises took place.

There were three state gymnasiums at Athens, the Lyceum, the Academia, and Cynosarges, and later several smaller ones were added. To none but the Cynosarges were other than those of pure Athenian blood admitted. This gymnasium was under the guardianship of Heracles and admitted those of mixed parentage.

The aim of gymnastics was not only to

make the body strong and active, but more especially to give a carriage dignified and graceful. All wished to fashion the body into a living likeness of a god and to be crowned victor at the public games. All gymnasiums were under the care of ten gymnasiarchs, who had general supervision of the building and removed at pleasure those teachers and philosophers of whom they disapproved. Subordinate to these were certain inferior officers called hypokasmetæ and a staff of instructors; pedotribæ and gymnastæ. The pedotribæ taught gymnastics as a part of education, and the gymnastæ trained those intending to become professional athletes. The usual training of the former consisted of the five exercises of the public games known as pentathlon. These exercises were,—the halma or leaping, discus or quoits, dromus or running, palê or wrestling, and pugme or boxing. The panoratum though not forbidden as at Sparta, was in disfavor through the liability to disfigurement, and was not commonly practised. The exercises were taken naked (qumnos) both in the gymnasium and in the games.

In preparation for the lighter exercises the body was carefully rubbed with olive-oil and the flesh scraped with a flesh-comb. Here as elsewhere, the youth was accompanied by the pedagogue, who kept him out of mischief and looked out for the class of his associates. Loungers were seldom allowed, and in Sparta the rule "strip or go" was rigidly enforced. The race course was laid on sandy ground. A requisite for competing in the Olympian games was that the candidates should take oath to having spent one month in training at Elis. The gymnastic training was especially valued for its influence on health, all gymnasia being dedicated to Apollo as the god of healing. The importance of gymnastics in Greek training was incalculable. The perfection of art, the architecture which derived its proportions from it, the sculptures which are its memorials, could never have existed but for the ideals of beauty produced and exhibited in the gymnasia and public games.

CHAPTER VII

STATE EDUCATION AT ATHENS-MUSICA

To the Greek, with his world one of beauty of creation and imagination, the term musica meant a wealth of influences beyond the modern comprehension of the name. Music comprised all that could please the ear, as gymnastics founded all that pleased the eye. intellectual pleasure which the ear conveyed was classed as Musica. Poetry was music; the poet aoidos, "a singer", and not yet the "maker", poetes, of Aristotle. Words were not poetry, unless "sweetened" by music, and he who composed, recited or read them must as much give the musical as the verbal expression. Who had not been taught to sing was uneducated, and Themistocles bore the opprobium of such a neglect through life. Neither civic duty nor religious worship was complete without music; the lawswere sung and the gods were worshipped in services of singing and dancing.

Since writing recorded, reading interpreted, and anotation very like the numerical rendered agreeable the thoughts of the poet, nothing is less difficult to conceive than the inclusion of "the three R's" under Musica. A little later these branches received the separate term Grammatics and the special teacher was a grammatist, but at the time of Pericles the same teacher taught all branches of musica and from the principal instrument of "music" was the citharist specialized from the general didaskalos.

Reading.—From the popularity of the epic poets, it is probable that a considerable knowledge of their compositions were derived from the nursery tales of the child's earliest years. While the nurse was not usually competent to teach reading or probably the alphabet even, she must have done much to fill the minds of her children with the subject-matter forming the basis of their later reading. The synthetical method was used in teaching the pupil to read. The powers of each letter were first taught, then the simplest combinations into syllables, and finally these into words. Syllabicising was the most

difficult part of the process and required most drill; both it and reading were rendered difficult by the manner of writing with no breaks between the words and entirely without written accent. After mastering the word, the sentence was taken up and reading begun. Rhythmical arrangements of the alphabet were used, and about 400 B.C. Callias attempted to make the alphabet an agreeable study by a so-called "grammatical tragedy", which was based upon the then recent introduction of the Ionic alphabet of twenty-four letters.

The teacher of reading employed as text-books principally Homer and Hesiod, with selected passages from the lyric poets. The Iliad and Odyssey were read by the boys, and passages recited and precepts committed as the Bible or catechism would be in a modern church school. These poems were looked upon as moralguides; and Homer was revered as one who had written with a moral intent in every line, and who moreover had been aided and inspired by a certain divine aestrus which had not been granted any other writer. Even the arts and sciences were by in-

terpretation drawn from his pages. Many grown men were said to be able to recite the whole of either poem. The selected readings, chrestomathiae, made from several writers are supposed to be all that remains of their compositions1. From the prominent place of the poets in the schoolroom, they were often called "school masters". reading great care was exercised in giving the proper intonation and preserving a rhythmical balance of clauses. Books were scarce and libraries exceptional. What the boy had read must be remembered if he would use or enjoy it again. A large part of the general instruction was by dictation or conversation. While the pupil was probably less learned, he was more ready and intelligent. In later times by the use of parchment books became more common, and complaints were made in regard to the increase of books and the lust after much and varied reading.

All reading was strictly from the Greek. While the different dialects did not hinder a common pride and ownership in the pro-

¹ As the poems of Theognis, the Golden Verses of Pythagoras, and many collections of maxims or proverbs $(\dot{\upsilon}\pi o\theta \tilde{\eta}k\alpha\iota)$.

ductions of genius from any part of Hellas, there was an utter disregard of foreign tongues. All foreigners were barbarians and must, if they wished to communicate with a Greek, either learn his language or procure an interpreter. Aristotle said a foreigner speaking Greek could be told simply by his use of the particles, an observation which Renan finds equally true with French. Plutarch lamented his inability to learn Latin, thinking that had he been taught earlier, it would have been easier; and Strabo mentions the fact that historical treatises written in foreign tongues were inaccessiable to the Greeks.

Writing.—Writing was learned simultaneously with reading: indeed the writing lesson of one day became the reading lesson of the next. It was never brought to any great degree of perfection in form or rapidity, as this was only of use to a slave, but it was nevertheless required. The material commonly used in the beginning was a sheet of papyrus which had been written upon and thus afforded an already prepared copy for tracing. Upon this the pupil traced carefully the letters

already formed, using a reed (calamus) pointed and dipped in ink. The material generally used in writing, however, was a tablet of wax upon which the writing was done with a sharp-pointed stylus, one end of which was flattened for erasures. In teaching writing in wax, a copy was set as in a modern copy book, and, in the earlier stages the hand of the pupil was guided by that of the master. Double lines were drawn for indicating the spacing, coinshaped pieces of lead being used for the purpose. This act of marking was called paragraphien. There were three styles of writing: (1) formal hand, consisting of separate capital letters and appearing in inscriptions and probably taught to children; (2) cursive hand as seen in the Greek papyri of the second century B. C.; and (3) the short hand of later manuscripts. In writing intended for preservation either papyrus or parchment was used; the former was written on but one side, the latter on both. During scarcity of material papyri of little moment were erased and rewritten; such were palimpsests. Wax tablets fastened

together at the sides were in use for temporary preservation. At Athens, a special officer (grammateus) had charge of writing all public documents and a secretary (hypographeus) "took minutes" at all public meetings.

Number.—Number was treated under two heads, the practical computations of every day life, called logistic, and the investigation of the properties of numbers and discovery of the principles applied in logistic, called arithmetic. The latter was little known, being reserved for the more capable grasp of the sophist and philosopher. The former was the common-school arithmetic. Plato advises its acquisition as an amusement, and suggests that the abstract ideas of thought be presented in as concrete a form as possible by the use of apples and other available objects. In representing numbers five different methods prevailed, at different times. At first, starting from the original suggestion of fingers, numbers were represented by straight strokes; but soon the five vertical lines representing five were replaced by the rude picture of a hand, V

(as later by the Romans), and in representing ten, two such symbols, X, were united. Larger numbers were represented by the initial letter of their name,—Χ (χίλιοι) was 1,000, M (μυριοι) 10,000, etc. Numbers intermediate between ten and one-hundred were indicated by a combination of initials as Π standing for five $(\Pi \dot{\varepsilon} \nu \tau \varepsilon)$ and Δ for ten $(\Delta \dot{\varepsilon} k \alpha)$, fifty, five times ten, was written | | |

In the ordinary counting and in the computations of the market-place, the fingers were used, not placed as digits, but bent at different angles and in varied relations to each other. The operator held his hand with fingers erect and palms facing outward. The second, third and fourth fingers might be straight, half-closed or closed.

The following was the method:-

(a) On the left hand

```
for 1, half-close the 4th finger only.
                     3d and 4th fingers only,
                     2d, 3d and 4th "
                     2d and 3d
   5.
                     2d
                                 finger
        66
                     3d
 " 7, close
                     4th
                     3d and 4th fingers only.
        66
                     2d, 3d and 4th "
```

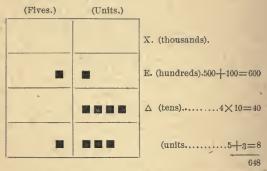
- (b) The same operations on the right hand give the thousands, from one thousand to nine thousand.
- (c) On the left hand

for 10, place the tip of the forefinger at the base of the thumb, thus forming σ .

- " 20, forefinger straight, separated from thumb by fingers slightly bent.
- " 30, join tips of forefinger and thumb.
- "40, thumb behind, on knuckle of fore-finger.
- " 50, thumb in front, on base of forefinger.
- "60, thumb as 50, bending forefinger to touch ball of thumb.
- " 70, rest forefinger on top of thumb.
- "80, thumb on palm, forefinger bent over first joint of thumb and other fingers slightly bent.
- "90, close forefinger only, completely as possible.
- (d) The same on the right hand gives hundreds from one hundred to nine hundred.

When accuracy was desired and the computations became involved, a counting-board or abacus was employed. This consisted of a stone or board having several straight furrows in which pebbles or plugs were set. At the left side was a special vertical division where each unit was equal to five. The hor-

izontal divisions had value according to the decimal scale. The number six hundred forty-eight would be represented thus on the abacus.



The books of the Iliad and Odyssey were numbered with the letters of the alphabet in order, from one to twenty-four. This mode of enumeration was borrowed from Phoenicia. Its use was never extended.

The last system in use among the Greeks and the most useful, was that of employing the letters of the alphabet with a fixed value for each letter and an arrangement quite like the Arabic. The letters from alpha (á) to iota (i) represented successively the num-

bers from one to ten inclusive, introducing the digamma for six. Each ten above the first was represented by the letters following iota, in succession as far as ro for one hundred, introducing koppa for ninety. Each hundred was expressed by the succeeding letters, with san for nine hundred. All numbers intermediate between the decimals were expressed by a combination of letters just as by figures in our own system. The acute accent was used on the right hand letter of each number below one thousand. For one thousand, alpha, with a subscribed accent was used, with the succeeding letters with like accent for each subsequent thousand to ten thousand. Above ten thousand the numbers were written.

During the time treated in this article, the finger notation was common in trading problems, the abacus in reckoning those more deeply involved, and the method last mentioned was that used in all accounts and records. The ordinary school boy was taught to add, to subtract, to multiply, and to divide.

Geometry though not yet extended by the

genius of Euclid was yet considerably advanced. While it was not taught in schools, it was held in high esteem as an elegant and perfect science. Both Plato and Aristotle agree as to its extraordinary value as a means of mental training, and in the fact that it can be taught to young boys yet unfit for political or metaphysical studies. The Parthenon, by Ictinus, was accurately geometrical, and the temple of Zeus at Olympia, by Libon, was built in multiples of five and seven, showing conclusively that mathematical studies were pursued to a considerable extent

Music proper.-Music, in the modern sense, was much cultivated, and its influence has probably never been better understood nor its study and practice so general. educative importance has been mentioned. It was believed to affect the passions as training in the gymnasium did the physique. As the character of the music so that of the nation. Martial music produced a race of warriors; sentimental, effeminate and voluptuous music would develop traits sympathetic in its hearers. It lightened care,

purified the thoughts, and harmonized the soul. It was the accomplishment of the gentleman and the expression of worship to his gods.

Greek music had none of the modern technicality of composition or execution. There is no evidence that there was anything of harmony other than of the octave, and that only in mixed choruses.

In accord with the belief, different nations had music of different character. Of these Plato mentions six—the Lydian proper, two modifications, the half Lydian, and accented Lydian, the Ionian, the Dorian, and the Phaygrian. He condemned the Lydian proper, and the Ionian as soft, and the other forms of Lydian as mournful. To him the Dorian and Phrygian are the height of manliness and morality. At Athens the Doric scale, nearly corresponding to our minor, seems to have been the favorite, and the Lydian measures, most like the modern major, were generally regarded immoral. So great was held to be the importance of a proper selection of airs that a state composer was appointed whose duty it was to examine all new compositions and to superintend their circulation.

The study of music did not begin till about the thirteenth year, although from its prevalence the boy could not have remained in ignorance of it more than at present. As now, it was divided into vocal and instrumental; naturally the former was first cultivated. When the instruction was given in charge of separate teachers, the one teaching vocal music was called phonaskas. Under him the elements of music reading and vocal rendering were acquired. lowing the phonaskas the instrumental teacher, citharist, took up the instruction. It was necessary that the instrumental teacher be also a vocalist, and indeed he generally taught both branches. Instrumental music in general found its only popularity in accompanying the voice. Even the flute was used principally to accompany another's singing.

The favorite instruments were the cithara, an instrument remotely resembling the guitar, and the lyre, which was made originally with four strings stretched across a

tortoise shell. It was increased to seven by Terpander, 660 B. C., and Pythagoras completed the octave by adding an eighth.

Anacreon was said to have used a magadis with twenty strings. The cithera was the most popular, and the teacher of instrumental music was named for it. The flute was popular at Thebes, and at one time even in Athens. Alcibiades brought it into disfavor there because it disfigured his handsome face. Its lack in not permitting the performer to use his own voice furthered its unpopularity. It was thought unworthy a brave man. Aristotle says: "The flute is not a moral instrument, but rather one to influence the passions." The flute mentioned was more nearly the modern clarionet. The modern flute, cross-played flute, was less common. Double flutes, played by means of leather-mouth-pieces, were used by the female flute players, who enlivened the symposium. The myth of Marysas evidently alludes to the victory of the lyre over the flute.

Drawing.—Drawing was a late addition to the curriculum of the Greek school, and,

as it was first mentioned by Aristotle, was probably not common much before the time of Alexander. By theorists its use was early recognized,-for practical purposes, to better judge and appreciate works of art,-for aesthetical purposes, unconsciously moulding the mind to beauty by a close and accurate study of beautiful forms. From the application of the word zographia (life-drawing) to painting in general, it has been inferred that figure painting was the earliest and principal branch of the art. Vase painting is always of this character. Owing to the Greek habit of personification, true-landscapes were not early essayed. The custom of representing mountains and rivers by their tutelary gods was common. In the pediment sculptures of the best epoch, these appear as emblematic of their appropriate landscape. Even when true landscapes were attempted, the subjects were not rocks and trees or wild country, but buildings and artificial grounds. Perspective was first introduced in scene-painting. Maps of the "world", in the Greek sense of the word, were said to exist at Athens.

The culmination of all education seems to have been dancing, the orchesis or chorus, a thing a little surprising to us. As music and letters prepared for civil life, and gymnastics for military, so the combination of these prepared for the highest duty, worship of the gods. Though dancing was a common entertainment of the symposium it was that of slaves, and there is no evidence that the free-born Athenian ever danced except in the tragic or comic choruses or "before his gods."

Where or when dancing was taught as regards school work, it is not definitely known, but the readiness with which large choruses were formed on short notice is ample evidence that it was taught well. In the preparation for a play the forming and training of the chorus is clearly settled. The choregus chosen by the archon undertook the sole care and expense of providing a suitable chorus, usually boys. These choreutae were selected, a trainer chosen, and a suitable place for training provided, either by building or in the choregus's own house. Care was taken that the food should strengthen the voice,

which shows the dual character of the chorus—dancing and singing. The music for dancing was provided by the singing of the *choreutae*, later by the cithara, and in connection with the plays by the flute.

The harmony of soul and physique which dancing produced is ample reason for placing it at the head of the system. As a supplement to gymnastic culture, it toned down the too ardent exercise of the gymnasium, the over-energy of muscular development, to the case and grace which was the Ionic ideal.

CHAPTER VIII

STATE EDUCATION AT ATHENS.—EPHEBIC TRAINING.

From the small size and limited population of the Greek States, a professional army was seldom possible. At Sparta each person became a citizen only to merge this identity into that of a soldier. While no standing army, paid from government funds, was maintained, each had an assigned place in the ranks, and was in constant readiness to fill it. In other States the military preponderance was much lessened, but no where were the citizens allowed to grow up without special training in military discipline and the use of arms.

At the age of sixteen or eighteen (variously stated) the Athenian boy usually ceased his exercises in school, excepting gymnastics, and was admitted to the rank of ephebus. On this occasion, with solemn service and sacrifice, he took oaths of fidelity and

patriotism, and undertook military duties preparatory to assuming the full responsibilities of life as a political burgess at twenty. The ephebi were clothed in a distinctive dress consisting of a short gray cloak or chlamys and broad-brimmed soft hat, petasus, in addition to their regular attire, and called peripoloi (patrolling police). They looked after the internal order of Attica, the condition of the roads, and occupied the frontier forts. They were not expected to stand under battle until their two year's probation was passed and citizenship conferred. Yet at a time when the Athenians were waging war away from home, leaving the city without armed defence, an attack made by the Corinthians was speedily repelled by the "boys and old men of Athens". Though this class has been referred to as universal, it was more probably limited to the wealthy. In later times, Roman citizens often sent their sons to be enrolled as ephebi and to undergo its discipline. Clubs were formed among them: solemn meetings were held; and public life imitated.

After admission to citizenship, the choice of life's vocation was entirely under the control of the individual. He must avoid business, though, if he would exercise his whole freeman's rights. None who had sold in the market place within ten years could take part in public affairs. Should the young man wish higher educational advantages and be possessed of sufficient means, he could attend the lectures of the Sophists and Rhetoricians. The instruction given by them stood in much the same relation to the educational system of that time as the modern college to ours. Beyond this was the instruction of the philosophers, which bore some relation to the university of to-day. The critical taunts which were ever passing between them in no small degree completes the comparison.

In addition to the detailed instruction of the school, there was the constant influence of surroundings favorable to the highest aims. A climate free from excessive heat or cold gave exemption from the necessities of more vigorous climates and furnished leisure for the attainment of an ideal. Ar-

chitecture unequalled and statuary which yet challenges approach, adorned the streets of the city. The free discussions of true democracy kept every man alive to the vital issues of the day. Orations peerless in all time, tragic and comic plays which have yet our admiration, were to be heard by all desiring; and the memories of men victorious in war, eminent in verse, and renowned in oratory, were perpetuated in monument and song. Such a combination of influences, aesthetic, patriotic, and noble, has never supplemented any school system before or since. Under, such influences the Greek boy grew to manhood; and by this means Greece attained her peerless eminence.

The attempt has been made to present as accurately as possible the educational practices of Greece at the time in which her greatest glory was achieved, purposely limiting the discussion to that part of the system which is immediately connected with the growing mind. In the succeeding centuries various differentiations arose from the system here presented. Minds with a vision extending far down the ages, formulated

theories which are prized among the educational maxims of to-day and which were the basis of education for centuries in all civilized countries, but these rather disrupted than unified elementary education, and were never largely incorporated in Greek life. The education obtained in the plastic years was pivotal and at the time of greatest national prosperity must have been best. Of this the discussion has been.

In looking over this system, the prevalence of so-called modern methods and devices, the parallels of recent movements in education, make it clearer that what we know of method is the resultant of centuries of cumulative experiment. Since music, dancing, drawing, and physical culture were deemed essential, and tracing in early penmanship and reading and composition from the classics of the language were usual, little other emphasis is needed to impress how fraught with suggestion is the history of past systems or how advantageous to education the intelligent appropriation of educational experience.































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